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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,336	08/31/2000	Kenichi Takekawa	196124US2	4688

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EXAMINER

SHAPIRO, LEONID

ART UNIT PAPER NUMBER

2629

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/653,336	<b>Applicant(s)</b> TAKEKAWA ET AL.	
	<b>Examiner</b> Leonid Shapiro	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 21-24 and 27-39 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 21-24, 27-39 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. (US Patent No. 6,492,633) in view of Flowers et al. (US Patent No. 4,918,262).

As to claim 21, Nakazawa et al. teaches a coordinate input-detecting apparatus including a touch panel to be touched by a pointer, coordinate input-detecting apparatus (Col. 1, Lines 7-10) comprising:

a substantially flat two-dimensional coordinate input-detecting area configured to receive insertion of the pointer, substantially flat two-dimensional coordinate input-detecting area being formed in front of the touch panel and having a prescribed depth (See Figs. 1-2, items 10, S, Col. 4, Lines 30-38);

an optical unit, configured to convert a light intensity distribution signal to digital data (See Fig. 4, item 36a, Col. 7, Lines 36-39); and

a controller configured to detect the pointer inserted into the coordinate input-detecting area when the digital data detected by optical unit exceeds a first (Fig. 4, item Ref) threshold value (See Fig. 4, items 5, 32-33, Col. 8, Lines 35-42);

wherein controller calculates the coordinates from the digital data when the digital data exceeds the first threshold value (Fig. 4, item Ref) between the pointer and the optical unit (See Fig. 4, items 5, 32a-35a, Ref and Fig. 6, item Ref).

Nakazawa et al. does not disclose controller calculates a distance between the optical unit and the pointer from the digital data and sets a second threshold value higher than of the first threshold in accordance with the distance calculated.

Flowers et al. teaches controller calculates a distance between the optical unit and the pointer from the digital data (See Col. 4, Lines 14-16) and sets a second threshold value (Fig. 5, item #4) higher than of the first threshold (Fig. 5, item #3) in accordance with the distance calculated (See Fig. 5, items # 3-4, Col. 8, Lines 7-27 and Col. 12, Lines 1-9).

Notice, that Nakazawa et al. first threshold (Fig. 4, item Ref) is equivalent to first threshold of Flowers et al. reference (Fig. 5, item #3).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teaching of Flowers et al. into Nakazawa et al. system in order to provide improved electronic sensing by using plural thresholds (See Col. 2, Lines 42-58 in the Flowers et al. reference).

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As to claim 22, Nakazawa et al. teaches the detection signal exceeds the second threshold value when the pointer almost contacts the touch panel (See Fig. 7, items Ref, Q00, Col. 10, Lines 6-12).

As to claims 23-24, Nakazawa et al. teaches the second threshold unit (in the reference is equivalent to Ref) is determined in accordance with a distance between the pointer and the optical unit (in the reference decreases with elapse time (scanning angle becomes smaller) from the start operation is equivalent to the distance) (See Fig. 7, item Ref, Col. 9, Lines 51-53).

3. Claims 27-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. and Flowers et al., as aforementioned to claims 21-24 above and in view Fumihiko et al. (JP No.09319501 A).

As to claim 27-30, Nakazawa et al. and Flowers et al. do not teach about first and second optical devices each having a light source and a light acceptance unit, wherein the second threshold value is set and used in comparing with detection signals generated by a the first and second optical units.

Fumihiko et al. shows two optical units installed in adjacent corners (See Drawing 1, items 1-3, k1. k2 and Detailed description, 0007).

It would have been obvious to one having ordinary skill in the art at the time of the invention to use first and second optical units, as shown by Fumihiko et al. in Nakazawa et al. and Flowers et al. device to provide a miniaturized high-reliability detector of simple configuration (See Problem to be solved in Fumihiko et al. reference).

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As to claim 31-34, Nakazawa et al. teaches optical units include reflection mirrors each disposed on prescribed sides of the coordinate input-detecting area, reflection mirrors having surfaces whose every portions return light beam to the light source (See Fig. 1, item 7, Col. 4, Line 39-51).

Nakazawa et al. and Flowers et al., do not show optical units being disposed at corners on the coordinate input detecting area.

Fumihiko et al. teaches optical units being disposed at corners on the coordinate input detecting area (See Drawing 1, items 1-3, k1. k2 and Detailed description, 0007).

It would have been obvious to one having ordinary skill in the art at the time of the invention to use optical units being disposed at corners on the coordinate input detecting area, as shown by Fumihiko et al. in Nakazawa et al. and Flowers et al. device to provide a miniaturized high-reliability detector of simple configuration (See Problem to be solved in Fumihiko et al. reference).

As to claims 35-38, Nakazawa et al. teaches optical unit further includes a probe light generating device configured to generate and swing and irradiate probe lights toward the reflection mirrors (See Fig. 2, items 11a, 11b, from Col. 4, Line 61 to Col. 5, Line 13).

4. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa et al. and Flowers et al., as applied to claim 21 above, and further in view of Sato et al. (US patent No. 6,225,986 B1).

Nakazawa et al. and Flowers et al. do not disclose second threshold is decreased as a distance is increased.

Sato et al. teaches second threshold is decreased as a distance is increased (See Fig. 4, item 103, Col. 7, Lines 13-21).

It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate teaching of Sato et al. into Nakazawa et al. and Flowers et al. system to provide compensation for attenuation of the detection level (See Col. 2, Lines 56-59 in Sato et al. reference).

### ***Response to Arguments***

5. Applicant's arguments filed on 03/17/06 have been fully considered but they are not persuasive:

On page 9, 1<sup>st</sup> to 3<sup>rd</sup> paragraph Applicant's stated that neither Flowers nor Nakazawa discloses utilizing a first threshold and second higher threshold to calculate coordinates. However, Nakasawa teaches the first threshold (See Fig. 4, item Ref) and Flowers et al. teaches the second threshold (See Fig. 5, item #4) higher than the first threshold (Fig. 5, item #3). Notice, that Nakazawa et al. first threshold (Fig. 4, item Ref) is equivalent to first threshold of Flowers et al. reference (Fig. 5, item #3). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

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On page 10, 1<sup>st</sup> paragraph Applicant's stated that in Nakazawa the term "distance" is actually a time and is not a physical distance. However, Nakazawa teaches how to calculate values of X and Y coordinates using triangulation (See Col. 11, Lines 1-40).

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Examiner's Note***

Please note the change in Art Unit Number from 2677 to 2629. Where applicable, future correspondence should refer to AU 2629. Thank You.




***Telephone inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LS  
03.27.06

  
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